



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,749	02/28/2002	William A. Montague	0252/US	8762

7590 10/15/2003

FRANCIS J. CAUFIELD
6 APOLLO CIRCLE
LEXINGTON, MA 02421-7025

EXAMINER

VORTMAN, ANATOLY

ART UNIT	PAPER NUMBER
----------	--------------

2835

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,749

Applicant(s)

MONTAGUE, WILLIAM A.

Examiner

Anatoly Vortman

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-11, 13-20, 22, 25, 26, 28, 29 and 31-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-16, 22, 25, 26, 28, 29, 31 and 34-36 is/are allowed.
- 6) ☒ Claim(s) 2-10, 32 and 33 is/are rejected.
- 7) ☒ Claim(s) 11 and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 17-20 are objected to because of the following informalities: claims depend from cancelled claim 12. Therefore, claims 17-20 have been withdrawn from further consideration on the merits.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 5, 8, 10, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US/4,484,185 to Graves in view of US/2,226,148 to Taylor and further in view of US/4,632,479 to Jacobson.

Regarding claim 33, Graves disclosed (Fig. 1, 2 and 10) an identical electrical safety connector fuse (10) as claimed in claim 33, including a sealed housing (12), live and neutral apertures (28, 30) for receiving prongs of a plug, live and neutral prongs (16, 14) for engaging live and neutral receptacles of an electrical socket, a fuse (124) connected to said live prong (16),

a live receptacle (24) connected to said fuse (124), and a neutral receptacle (22) electrically connected to said neutral prong (14), but did not disclose that said live and neutral prongs have root sections of outward surfaces substantially formed from insulating material and tip portions formed from an electrically conducting material and that a blocking member is disposed within the housing so as to block said neutral and live apertures.

Taylor disclosed (Fig. 1) a connector (2) having neutral and live prongs (12) comprising root sections of outward surfaces substantially formed from insulating material (13) so as to prevent short circuit across partially withdrawn (from socket) prongs (column 2, lines 45+) and tip portions (12') formed from an electrically conducting material.

Since inventions of Graves and of Taylor are from the same field of endeavor (electrical connectors (i.e. plugs)), the purpose of the partially insulated prongs disclosed by Taylor would be recognized in the invention of Graves.

It would have been obvious to a person of ordinary skill in the fuse or connector arts at the time the invention was made to provide prongs of Graves with insulated root sections as taught by Taylor in order to prevent short circuit across partially withdrawn (from socket) prongs, thus enhancing the safety of the device.

Furthermore, Jacobson disclosed an electrical receptacle having apertures for accepting prongs of a plug, said receptacle comprising blocking members biased in a closed position and disposed so as to block said apertures in order to prevent tampering and insertion of the metal objects into the apertures of the receptacle (column 4, lines 66+, column 5, lines 1+), wherein said blocking members being movable in response to the insertion of a plug prong into said apertures (column 1, lines 33-68; column 2, lines 1-12).

Since inventions of Jakobson, Graves and of Taylor are from the same field of endeavor (electrical connectors (i.e. plugs)), the purpose of the blocking members disclosed by Jakobson would be recognized in combination of Graves and Taylor.

It would have been obvious to a person of ordinary skill in the fuse or connector arts at the time the invention was made to modify the aforementioned combination of Graves and of Taylor by providing it with blocking members as taught by Jakobson in order to enhance the safety of the device.

Regarding claim 2, Graves disclosed a ground aperture, a ground prong extending outwardly from said housing (12) and a ground receptacle positioned in said housing (12) (between receptacles (22, 24)) adjacent said ground aperture, (Fig. 10).

Regarding claim 5, Graves disclosed means (70, 72) for releasably securing said connector fuse (10) to the electrical socket (62, 64), (Fig. 1, 6).

Regarding claims 8 and 10, Graves disclosed a light emitting means (light emitting diode (35a)) electrically connected to said live and neutral receptacles (22, 24) and positioned adjacent a light-transmissive portion (46a) of the housing (12), (Fig. 10).

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graves in view of Taylor and Jacobson and further in view of GB/2,373,377 to Blair et al., (Blair).

Regarding claims 3 and 4, Graves in view of Taylor and Jacobson disclosed all of the claims limitations as apply to claim 33 above, but did not disclose Braille markings on the connector housing.

Blair disclosed an electrical connector (i.e. plug) (Fig. 1) having Braille markings (2) for identification purposes.

Since inventions of Graves, Taylor, Jacobson and of Blair are from the same field of endeavor (electrical connectors (i.e. plugs)) the purpose of the Braille markings taught by Blair would be recognized in the combination of Graves, Taylor and of Jacobson.

It would have been obvious to a person of ordinary skill in the fuse or connector arts at the time the invention was made to provide Braille markings as taught by Blair on the connector housing in combination of Graves, Taylor and Jacobson for the identification purposes.

5. Claims 6 and 7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Graves in view of Taylor and Jacobson and further in view of US/4,071,872 to Phillips, Jr., (Phillips).

Graves in view of Taylor and Jacobson disclosed all of the claims limitations as apply to claim 5 above, but did not disclose a flange with an aperture adapted to replace a faceplate of the electrical socket.

Phillips disclosed (Fig. 1 and 2) a connector (22) having a connector housing (30, 44) comprising a flange (28) extending laterally from said housing and having at least one aperture (62) extending therethrough such that a fastener (a screw) can be inserted through said aperture (62) to secure said connector to the socket.

Since inventions of Graves, Taylor, Jacobson and of Phillips are from the same field of endeavor (electrical connectors (i.e. plugs)) the purpose of the flange with the aperture formed therethrough disclosed by Phillips would be recognized in the combination of Graves, Taylor and Jacobson.

It would have been obvious to a person of ordinary skill in the fuse or connector arts at the time the invention was made to provide said housing in the combination of Graves, Taylor and Jacobson with a flange having an aperture formed therethrough as taught by Phillips in order to secure said connector in the combination Graves, Taylor and Jacobson to the face plate of the socket, thus preventing accidental separation of said connector from the socket.

The functional limitation of claim 7, that "said flange is adapted to replace the face plate" while being considered has not been given patentable weight, because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC § 112, 6th paragraph, or must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.G. 279. Also, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graves in view of Taylor and Jacobson and further in view of US/3,539, 961 to Worthington.

Regarding claim 9, Graves in view of Taylor and Jacobson disclosed all the limitations as apply to claim 8, but did not disclose a resistor connected in series with the light emitting means.

Worthington disclosed an electrical connector (Fig. 4 and 5) having a light emitting means (30) and a resistor (80) connected in series with said light emitting means (30) so as to prevent shunting of the load current to said light emitting means (column 3, lines 35+).

Since inventions of Graves, Taylor, Jacobson and of Worthington are from the same field of endeavor (electrical connectors (i.e. plugs)), the purpose of the resistor disclosed by Worthington would be recognized in the combination of Graves, Taylor and Jacobson

It would have been obvious to a person of ordinary skill in the fuse or connector arts at the time the invention was made to provide a resistor connected in series with the light emitting means in the combination of Graves, Taylor and Jacobson as taught by Worthington in order to prevent shunting of the load current to the light emitting means in said combination.

7. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graves in view of US/2,226,148 to Taylor.

Regarding claim 32, Graves disclosed (Fig. 1, 2 and 10) an identical electrical safety connector fuse (10) as claimed in claim 32, including a sealed housing (12), live and neutral apertures (28, 30) for receiving prongs of a plug, live and neutral prongs (16, 14) for engaging live and neutral receptacles of an electrical socket, a fuse (124) connected to said live prong (16), a live receptacle (24) connected to said fuse (124), and a neutral receptacle (22) electrically connected to said neutral prong (14), but did not disclose that said live and neutral prongs have root sections of outward surfaces substantially formed from insulating material and tip portions formed from an electrically conducting material.

Taylor disclosed (Fig. 1) a connector (2) having neutral and live prongs (12) comprising root sections of outward surfaces substantially formed from insulating material (13) so as to prevent short circuit across partially withdrawn (from socket) prongs (column 2, lines 45+) and tip portions (12') formed from an electrically conducting material.

Since inventions of Graves and of Taylor are from the same field of endeavor (electrical connectors (i.e. plugs)), the purpose of partially insulated prongs disclosed by Taylor would be recognized in the invention of Graves.

It would have been obvious to a person of ordinary skill in the fuse or connector arts at the time the invention was made to provide prongs of Graves with the insulated root sections as taught by Taylor in order to prevent short circuit across partially withdrawn (from socket) prongs, thus enhancing safety of the device.

Allowable Subject Matter

8. Claims 13-16, 22, 25, 26, 28, 29, 31, and 34-36, are allowed.
9. Claims 11, is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. The following is a statement of reasons for the indication of allowable subject matter:
regarding claim 11, the claim recites "the whole of said housing is light-transmissive";
regarding claims 13-16, 31, and 34, claims 31 and 34 recite: "said blocking member also having a cam surface...to be engaged by said neutral prong";

regarding claims 22 and 35, claim 35 recites: "said neutral prong extends a greater distance from said housing than said live prong";

regarding claims 25, 26, 28, 29, and 36, claim 36 recites: "a tip portion...is formed from said insulating material".

The aforementioned limitations **in combination** with remaining limitations of the respective claims are believed to render the subject matter of the aforementioned claims patentable over the art of record.

Response to Arguments

11. Applicant's arguments regarding claim 32 have been fully considered but they are not persuasive. The main thrust of the arguments is directed to the assertion that combination of Graves and of Taylor references have been improper, for lack of motivation to combine the teachings of said references and because the Examiner allegedly has used suggestion which came from the Applicant (i.e. hindsight) (see p. 15, lines 25+). The Examiner would like to reiterate that in the body of the rejection the motivation has been clearly articulated, i.e.: "in order to prevent short circuit across partially withdrawn (from socket) prongs, thus enhancing safety of the device" (see above). The Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures

taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA) 1969. Also, as decided in *In re O'Farrel*, 7 USPQ 2d, 1673-1681, Fed. Cir. 1988, obviousness does not require absolute predictability of success. Indeed, for many inventions that seem quite obvious, there is no absolute predictability of success until the invention is reduced to practice. There is always at least a possibility of unexpected results, that would then provide an objective basis for showing that the invention, although apparently obvious, was in law nonobvious. *In re Merck & Co.*, 800 F.2d at 1098, 231 USPQ at 380; *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1461, 221 USPQ 481, 488 (Fed. Cir. 1984); *In re Papesch*, 315 F.2d 381, 386-387, 137 USPQ 43, 47-48 (CCPA 1963). For obviousness under 35 U.S.C. 103, all that is required is a reasonable expectation of success. *In re Longi*, 759 F.2d 887, 897, 225 USPQ 645, 651-652 (Fed. Cir. 1985); *In re Clinton*, 527 F.2d 1226, 1228, 188 USPQ 365, 367 (CCPA 1976). In response to Applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. *In re McLaughlin*, 443 F.2d 1392; 170 USPQ 209 (CCPA 1971). In the instant case the method of insulating plug prongs besides teachings of Taylor (see above), also has been notoriously known in electrical arts at the time

the invention was made to a person of ordinary skill in the art as a simple safety measure dictated by common sense.

Applicant's arguments with respect to the remaining claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 703-308-7824. The examiner can normally be reached on Monday-Friday, between 9:30am and 6:00 pm..

Application/Control Number: 10/086,749
Art Unit: 2835

Page 12

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg can be reached on 703-308-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

A.V.

A handwritten signature in black ink, appearing to read 'A. Vortman', with a stylized flourish at the end.

Anatoly Vortman
Primary Examiner
Art Unit 2835